

## Globalization and Nuclear Proliferation

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### Introduction

*Waiter, there's a fly in my soup!  
Shh! Not so loud! Everyone else will want one too!*

Globalization as we know it now emerged after World War II. Proliferation as we know it now also emerged after World War II—not only with the advent of nuclear weapons, but with the advent of long-range ballistic missiles, starting with the German V-2.

Globalization is the interconnectedness of the world, especially through trade, but in new and intricate ways that constitute a qualitative change and on a scale that far outstrips previous episodes of globalization. It has spread gradually since the end of World War II, although with intermittent setbacks, adding more and more countries, some with stronger links to the rest of the world than others. The number of countries and the proportion of world population not yet joining globalization have been shrinking, though some may never be able to join and may forever dwell in nasty, brutish, and poor conditions. Globalization is an ongoing phenomenon, with neither inevitable character nor outcome. One can imagine it all breaking apart again, but it is hard to make the case for breakdowns—it takes a lot more imagination than describing its twists and turns. Do we think of globalization as growing exponentially? Not really, because it is not automatic, especially now that membership in the World Trade Organization (WTO) is becoming the qualification for having been “globalized.” That takes negotiation.

Proliferation is the increasing number of countries acquiring weapons of mass destruction (WMD)—nuclear, chemical, biological, and ballistic missiles with which to deliver them. This article is confined to proliferation of nuclear weapons. Is proliferation exponential? Not likely. The data set is still too small and the course of events too slow, whereas the data set for globalization as a broader process is far richer.

Are globalization and proliferation in some kind of symbiotic relationship, growing with, and as a result of, each other? Is the process of globalization, as it makes technology, education, and other aspects of modern life, available to more and more countries—and even individuals or private organizations—stimulating proliferation? Is proliferation in some kind of race with globalization to make it all break down somehow? No. The next steps in proliferation are being

taken by North Korea, Iran, and the least globalized countries in the world.[1] Proliferation is so incidental that it is hard to connect it to globalization in general. It has been only a very small part of the unfolding of the world system as we have witnessed it. Any use of WMD would be catastrophic, of course, but across the long history of proliferation, it hasn't happened yet—except for the first and only use of nuclear weapons by the United States in 1945.[2] It is probably a good thing the United States did that; the awesome effects have probably deterred further use more than anything else.[3]

The history of the post-World War II world—especially since the break-up of the Soviet Union—has been marked by the steady decline of state-on-state conflict, the steady and steep decline of internal conflicts, the shrinking number and isolation of the very few rogue states, and the growing number of democratic countries. Democracy, however, is a fragile thing and is threatened now even in the United States. These aspects are coupled with the growth of economies (that is, prosperity). Concomitantly, we are seeing a worldwide decline in defense budgets and a growth in governments funding social safety nets—a phenomenon that is generally alarming and incomprehensible to the American security community. This is the broad arrow of globalization's direction.

The case of China might possibly pose some exceptions to all of this. That is, we don't quite know, nor does China know, how it will eventually fit into the flow of globalization. It's off to a good start, though its threats to Taiwan and its military programs aimed toward that country are threats to world peace. But the China case is not particularly relevant in trying to sort out the possible coupling between globalization and proliferation—except as it applies to its support to Pakistan, providing warhead designs and missiles when China was in the rogue role (which we hope it no longer is).

And then there are the new global terrorists, who have taken advantage of the ease of personal movement, global communications, and movement of money around the world to strike in various places—from Bali to New York. They are coupled with the most difficult current problem of globalization: whether The Gap countries—that is, the Islamic countries, and particularly the Arab countries of the Middle East—can fully enter the global system.[4] Right now, they are struggling with their existing awkward connections with the aspects of globalization and with the globalized world, while falling behind in many respects.

So there are connections between globalization and proliferation, but mostly because they've been happening in one world system. One process is very broad, rich, exuberant, and sweeping—finally bringing huge masses of people into better living—while the other is small, sneaky, narrow, and happening to countries that are, or have been, at various stages of the post-World War II process, outcasts in the great world system. Has globalization reached the stage where any technology is available to any country, group, or individual? And would this mean exponential proliferation? Probably not. It's harder than one thinks. It is also true that globalization is not some automatic, self-regulating, self-generating process, but something that must be managed. And, managing proliferation is part of that.

## **The Emergence and Evolution of Globalization**

Let us look at globalization first. As previously stated, it started back in 1945, with the restoration of West Germany and Japan to the civilized world and the recovery of Europe, first simply as humanitarian relief and then with economic rebuilding stimulated by the Marshall Plan. The surprise was that West Germany and Japan quickly emerged as major exporters, and they still play a huge role in global trade. (Germany just edged ahead of the United States to reclaim its role as the world's largest exporter—something we forget as Chinese exports grow. China has a long way to go to catch up.)[5]

The World War II allies met at Bretton Woods in 1945 to establish a set of international rules that would help avoid another Great Depression—which many thought was a prime stimulant for World War II. The states trying to overcome the Depression undertook, as Harold James has analyzed, high tariffs, restrictions on immigration, and currencies fixed to the gold standard—all autarkic and beggar-thy-neighbor policies.<sup>[6]</sup> They also stimulated their economies with heavy industry—building ships, tanks, and airplanes. More importantly, Bretton Woods set up the new rules and institutions that provided financial stability and resolution for the problems of the participating countries.

## **The Cold War**

But this new globalization system that the United States led in the aftermath of World War II took on a new dimension with the emergence of the Cold War only about two years into the new era. The Soviets offered a competing system, both in economics and in politics. And talk about proliferation! The wild nuclear arms race took off in the 1950s with consequences—not all of them bad, as will be discussed later. The Cold War was also an extension of the two European world wars. The West as a concept was one of new Trans-Atlantic relations and trade with the addition of Japan, (and later South Korea.) This was in contrast to the old notion of Occident and Orient, with the Orient beginning at Istanbul. We still cling to the notion of the West, but, really, globalization wipes it out. Nonetheless, the West, in contrast to the Soviet East, formed the core of globalization as it emerged. Its rules and the amicability of the relations of its component countries constituted the core of the world system and became truly global with the collapse of the Soviet Union's putative competing system.

## **Decolonization**

Decolonization was another outgrowth of the Western system. It was a mixed blessing for the unfolding concept of globalization. Decolonization happened because the old metropolises—after their devastation in World War II—found that their colonies now needed subsidies rather than continuing to be the cash cows they had been prior to the war. In a sense, decolonization was a retreat from globalization, but the former metropolises did leave systems of government in place, at least in most of the new states. Unfortunately, that system was one of state planning, which some call socialism, rather than a complete free market. The Soviet East and the West competed to install their systems in these new states, but eventually corruption in many of them overcame governing systems and economics and, as a result, even now, many states are left unconnected to the new global economic system. The end of the Cold War marked the end of state planning of economies—and this was bad news for support of military establishments, to be discussed later.

## **The Rise of the Far East**

Germany and Japan exuberantly increased exports and got rich, with the rest of Europe following by at least 1980. The next step in globalization was the emergence in the 1970s and into the 1980s of the Asian Tigers—Singapore, Hong Kong, Taiwan, and South Korea, followed by Malaysia, Thailand, and, almost, Indonesia. What they represented was the diffusion of manufacturing and financing, as represented by Nike shoes. They were dependent on the emerging world economic system and helped create it at the same time. Maybe this was what Deng Xiaoping saw as he set out to cure China's economic doldrums by opening up to the world, though the real Chinese take-off in its contributions to the global economy seems to have begun around the mid-1990s.

## **The Exclusion of the Middle East**

Two sides of the earth—the Euro-American combination and the Far East—were creating the new wealth and new trade, from sneakers to computer chips. Something was missing in the middle—the Middle East and South Asia, and especially the Islamic world, stretching from Morocco to Pakistan. It was part of globalization because of all the oil there. Oil had been a global commodity from at least the 1930s because its main sources were not its main users. The United States as a government didn't get too excited about the global oil market until around 1970, at which time its recognition grew that the United States' own oil would run out (the United States is still the third largest pumper of oil in the world). Yet U.S. oil companies, along with British and Dutch competitors, had been global since the 1930s. They already knew what globalization was and had created large fleets of super-tankers. But the U.S. government itself got into the Middle East only by fits and starts, torn by its conflict of motives between supporting Israel and ensuring the continued flow of oil.

Let no one say that globalization was anything planned—it has unfolded by inadvertence all the way. Yet let us not forget that it was American businessmen who had been busy creating it, from oil originally, through their exploitation of the new opportunities of the European Common Market, and even later in the relentless search for cheap products from China. It was American buyers that opened up opportunities in China, not Chinese salesmen in the United States.

When the author entered Middle Eastern affairs in 1979, he did not think about globalization or worry about its connections to the countries there. Rather, most felt the United States was in some kind of competition with the Soviets, especially after the Shah of Iran fell and the Soviets invaded Afghanistan. The West got Egypt; the Soviets got Ethiopia, which meant the West was coming out ahead. With the end of the 1973 war, Sadat's trip to Jerusalem, and the Camp David Accords, many observers thought Arab-Israeli wars in the Middle East were ending. They were surprised by the emergence of the monster Saddam and his going to war against Iran in 1980 and against Kuwait in 1990. This may have been the greatest lost opportunity to connect the Middle East to globalization, for Iraq had the potential to participate fully in the global economy, in contrast to Saudi Arabia and Egypt. But now because of Saddam's wars, the wild growth of Arab countries' populations, and the spread elsewhere of the benefits of globalization's world trade, we find the Middle East falling way behind. Iran's decision to become a theocratic regime and largely withdraw from the world, other than its oil, didn't help.

The quagmire the United States is now in, in Iraq, and the spread of the gossamer web of global Islamic terrorism have further complicated the picture of spreading globalization. It is ironic that the United States invaded Iraq to stem proliferation that turned out not to exist, whatever lust for it may have remained in Saddam's heart, while the fear of the global terrorists acquiring WMD remains. The United States still has big problems in the Middle East, but these are problems more associated with dragging them into the globalized world and less as matters of proliferation.

## The Collapse of the Soviet Union

The final chapter in creating the new globalization, though not in how it may evolve, lay in the collapse of the competing Soviet system. While the U.S. government provided much of the world's security, U.S. businessmen, along with their West German and Japanese counterparts, had set up the global economic system that lay outside the Soviet bloc.<sup>[7]</sup> The U.S. government trailed along on the economic side, promoting free trade rules through the General Agreement on Tariffs and Trade and organizing the G-7 (G-8 with the addition of Russia).<sup>[8]</sup> It was too easy to simply call that global system outside the Soviet bloc containment. Life outside the Soviet Bloc was bigger than that. Defense did containment. Everybody else was globalizing. What the collapse meant was that a lot more countries wanted to join globalization, not least Russia and the Caspian countries wanting to pump and export more oil and gas. It also meant, though, that the Central Asian and Caucasian countries were close to becoming failed or dictatorial states (though it is interesting that we hear nothing from Tajikistan these days, the one place aside from Chechnya where there was a real civil war).

## Results of Globalization

And so globalization really took off in the 1990s and into the first years of the 21st century. It even survived the financial crisis in East Asia in 1997 and the collapse of the information technology boom in the United States in 2001.<sup>[9]</sup> India started to free itself from state planning beginning in 1991, and the Chinese economy really took off from the mid-1990s.

What kind of world has globalization brought us?

- The Cold War has ended.
- State-on-state conflicts have essentially disappeared, except for those the United States has gotten involved in and others it may yet pursue.
- There has also been a steep decline in internal conflicts, however intense some may be and whatever the continuing mess in Congo.
- Defense budgets in all the advanced countries except the United States (which, for a short time, took a peace dividend) have declined, many steeply.

One big reason for the decline in conflicts and military confrontations is that governments are maintaining safety nets for the population—a very un-American idea, but the Bush administration is working hard to put that right in our own country—and this puts a squeeze on defense budgets. Another reason is that the Mid-East countries lost access to all that free equipment from the Soviet Union. The equipment they acquired before the collapse of the Soviet Union is getting very old, and is without replacement. Where China's defense budget will go is a mystery right now, in part because they have just started and in part because they also have to create a social safety net as they close down the old Soviet-style, state-owned enterprises in favor of private enterprise. Their military equipment is built in state-owned enterprises, when not purchased from Russia.

## Global Terrorism

The new element threatening global peace is global terrorism, which the United States recognized fully on 9/11, but which had been brewing for some time following the United States' encouragement of Arabs to go fight in Afghanistan against the Soviets.

The spread of this threat has been facilitated by globalization—notably, by the ease of air travel, the mobility of people, and the advent of cell phones and the Internet. It also comes from restless Arabs and other Muslims from repressive countries, who emigrated only to find themselves in anomic situations in their new countries—especially in Europe—where they are encouraged by Saudi-financed preachers to attack the West and Western cultures. Additionally, U.S. forces are bogged down in Iraq, a dramatic change that has diverted the United States from otherwise fostering globalization as it had before.

Global terrorists form a gossamer web around the globe except in China (excluding the eight million beleaguered Uighurs in Sinkiang). They lost their base with the loss of the Taliban in Afghanistan. They are dispersed in small cells. They haven't attacked the United States now for nearly five years, though all of us are ready for anything. Most of the world goes about its business and tries to take care of its mostly economic problems without thinking much about the terrorists. Two new books on globalization don't mention, or barely mention, terrorism.<sup>[10]</sup> Neither one has a reference to proliferation in its index. There is much talk among the non-governmental organizations (NGOs) and DOD about "failed states" and by DOD about "ungoverned areas," but so far none have proved hospitable as a new al Qaeda base.

## Globalization and Proliferation

Let us now turn from the expansion of globalization over the last 60 years, and the vast activity in the world that comes under that heading, to the specific cases of proliferation across the same period. The cases are limited, but the expectation across all 60 years has been that at any moment it will grow exponentially. We are now in a new phase of that fear, one that anticipates that it is the global terrorists who want to acquire nuclear weapons.

The nuclear bomb era began in 1945. The chemical weapons era emerged earlier, in World War I. The biological weapons era has not been quite realized, though both the Soviet Union and the United States worked hard at it, and there are rumors that the Russians continue the Soviet work. The focus here is the nuclear weapons issue. Long-range ballistic missiles also appeared at the end of World War II, with the advent of the German V-2 and the dispersal of German technicians to both the United States and the Soviet Union.

Without going into the vast nuclear and missile race between the United States and the Soviet Union, note that their huge numbers had a damping effect and made all other efforts look pathetic. Proliferation for both the United States and the Soviet Union meant others building nuclear weapons. The United States reluctantly let the United Kingdom into the club, given its cooperation in the Manhattan Project, and later, much more reluctantly, France. A scheme called the Multilateral Force planned to keep Germany from getting nuclear weapons. Apparently, all the Germans really wanted was to be involved in the planning for the use of nuclear weapons in Europe.<sup>[11]</sup>

The Soviets, for their part, set the Chinese up in the business. The Chinese first tested a nuclear weapon in 1964. It is remarkable how slowly Chinese nuclear forces have grown.<sup>[12]</sup>

France and the United Kingdom have, in the interim, shrunk their nuclear forces down to a few air-delivered bombs and their submarine-launched ballistic missiles (SLBMs).<sup>[13]</sup>

By the mid-1960s and into the 1970s, there were great fears that South Korea and Taiwan would go nuclear. The Swedes and the Japanese have had the capabilities to do so, but still haven't.

Later, the Brazilians and Argentineans confronted each other. The Argentines were even developing a missile, the Condor, and might have been sharing it with the Egyptians. But Brazil and Argentina gave it up, although the Brazilians still seem intent on enriching uranium.<sup>[14]</sup>

Then came the Israelis, in the late 1960s. Some of those working Mid-East affairs in the Intelligence Community at the time wanted to deny Israel F-4 aircraft unless they stopped their nuclear program. But, Lyndon Johnson specifically called them off.

After China tested its first nuclear weapon in 1964, India, too, resolved to develop nuclear weapons. They tested something they called a peaceful nuclear explosion (PNE) in 1974. It was so peaceful that they didn't even instrument it, so they didn't know the yield. Pakistan followed suit with its own indigenous program. By the time the United States entered into relations with them in early 1980—after the Soviet invasion of Afghanistan—it was clear that A. Q. Khan was up to something and that they were well down the road.<sup>[15]</sup> In 1989, the U.S. government could no longer certify that Pakistan was not weaponizing, and U.S. assistance programs were cut off. Finally, in 1998, with the advent of the Bhartiya Janta Party-led Hindu nationalist government, India tested weapons, and Pakistan followed shortly thereafter.

It's well known that the Israeli and Indian reactors, Dimona and Tarapur, used to provide plutonium for their weapons, were provided by Canada. Canada also built a reactor outside Karachi, and there was a hole in it that evoked International Atomic Energy Agency (IAEA) suspicion. But, Pakistan's fissile material production seems to have been outside Islamabad, with

centrifuges and their designs stolen by A. Q. Khan from the uranium enrichment company, URENCO, in the Netherlands.

Somewhere in this general time frame, South Africa developed its own nuclear weapons—six gun-type bombs. As a political scientist from South Africa has explained, the Afrikaner government feared black hordes descending upon them from the north. These scenarios got even more fantastic once they had possession of nuclear weapons. But, then South Africa had its revolution, and a multi-color government took over. The blacks were in charge, as it were, and the Afrikaners decided that they had better dismantle the nuclear weapons. It's unclear what they did with the highly enriched uranium in that program.

A. Q. Khan turns out to have been privately selling technology and centrifuges to Iran and to Libya, and had possibly been dealing with North Korea as well. Libya apparently never got their equipment and materials out of crates; some of their shipments were intercepted; and they decided to give it up in order to rejoin the globalized world.

And now the United States is struggling with the Iranian and North Korean nuclear programs—the next chapter in proliferation of nuclear weapons. Iran started its program in the late 1980s, but it is some time away from having enough fissile material to make a weapon. The first crisis with North Korea came in 1994 when rods were transferred to a cooling pond at Yongbyon.

Who is next? The terrorists would love to have and use nuclear weapons, as well as chemical and biological. They would have to steal or buy them since there is no evident place in which they could set up an industrial capability to produce them on their own—their efforts in Afghanistan were exceedingly primitive. The place to steal one would be Russia, where there is continuing confusion as to whether fissile material removed from dismantled weapons is fully secure. An intact weapon might well be too heavy. The availability of suitcase bombs seems to have been strongly discounted.<sup>[16]</sup> North Korea might be willing to sell them one for big money. Would Iran give terrorists a weapon? It's unlikely. They are Shia; the terrorists are Sunnis. The Iranians could give a bomb to the Lebanese Hezbollah, who are Shia, to use against Israel, but this would be suicidal for Iran.

If North Korea is to be a nuclear possessor, and otherwise seems not under restraint, containment, or deterrence, South Korea and Japan might be tempted to follow.<sup>[17]</sup> This should be the greatest incentive for China to try to stop North Korea, but it is not clear it can. It is ironic that the notion of North Korea threatening China itself seems completely absurd. China is simply not threatened, which says something about the politics of all this.

Who else? James Russell speculates that the Saudis might be in the market. To deter who? The Iranians? Possibly.

Then there are the ballistic missiles for WMD warheads to go on. They are mostly variants of Scuds and Nodongs from North Korea. Russia sold a lot of Scuds. They have been in the Middle East for decades. Scuds are just variants of V-2s. It is absurd to think that any country would strap a bunch of these Scuds together to make an ICBM, especially without testing. And, as retired Major General Vladimir Dvorkin—whose career was in testing missiles—notes, half of the first 10 tests of any new missile fail. He has also observed that the United States and Soviet Union tested a new missile up to 70 times to establish reliability and accuracy. We see nothing of the sort in North Korea or Iran. Pakistan and India, however, are proceeding with their missile programs.

To summarize, in contrast to the enormous activity characterizing the process of globalization over the last 60 years, we have instead this slim chain of proliferation events: the United Kingdom-France-China-Israel-South Africa-India-Pakistan-and now North Korea and Iran. We

must treat Iran's eventual nuclear capability as inevitable until we definitely know otherwise; but somehow it is hard to believe they are going the route that Japan has taken—to the brink of the accumulation of fissile material, but not weaponizing. All of this has taken place despite the spread of nuclear power reactors in selected countries around the world—most decades ago. We have seen a few countries forego the opportunity to pursue nuclear weapons. South Africa gave up its weapons. Brazil and Argentina receded, though Brazil still raises suspicions. Libya gave up its unopened crates. The United Kingdom, France, and China, along with the United States, and now Russia as successor to the Soviet Union, are the P-5 (Permanent Members of the UN Security Council) and are recognized in the Non-Proliferation Treaty (NPT) as legitimate.

## Connecting Globalization to Proliferation

How, then, does this slim proliferation record compare with globalization? Might globalization be somehow responsible?

In the first place, it should be noted that the huge race between the United States and the Soviet Union made everybody else's efforts look pathetic. The United Kingdom and France always felt bad, and never quite knew how their small forces fit with those of the United States.<sup>[18]</sup>

We saw one chain of proliferation, which had something to do with the Cold War, but not with globalization because it came before that realization. China, India, and Pakistan all had outside help to build reactors.

There has been another chain: Israel—Iraq—Iran. It is no coincidence that the only really serious series of wars in the Cold War—that is, India-Pakistan (1947, 1965, 1971) and Arab-Israeli (1948, 1956, 1967, 1973)—led to the acquisition of nuclear weapons by three of those countries, and attempts by two others.

Pariah countries—Israel, South Africa, North Korea, Libya—pursued nuclear weapons. And yet the Chinese, Israeli, North Korean, Iraqi, and Iranian cases emerged from nuclear energy programs provided by the Soviet Union, Canada, France, and even Germany.

Certainly one observation is that all these countries were on the margin or on the outside of globalization. In the Cold War context, they were among the contained; globalization spread under the protection of containment. They were also isolated from the main stream during globalization as it emerged after the Cold War.

The aspiration of the terrorists for nuclear weapons stems from their inability to cope with globalization. Globalization threatens elite controls, liberates women, is relentlessly secular, and is economically disruptive—bringing all kinds of uncertainties, as well as opportunities, to everyday life.<sup>[19]</sup> Nonetheless, the terrorists' aspirations—however catastrophic they might be—are highly unlikely to be realized. They have dispersed, are in hiding, and can hardly assemble an industrial capability. Nearly five years after 9/11 and after the United States and Northern Alliance crushed the Taliban, they do not have a new host country.

However, the paradox remains that it was globalization across the long term, from 1945 forward, that permitted any of this proliferation. The only purely indigenous efforts to build nuclear weapons, without other countries' assistance, were those of the United States and Soviet Union. Maybe France, and possibly Israel, should be added. The United Kingdom participated at Los Alamos. Israel got its reactor from another country. Some might say the Soviet Union stole from the Manhattan project via Klaus Fuchs. Perhaps Atoms for Peace as a global initiative complicated the situation, Iran being the latest case. But let us remember that Atoms for Peace has largely worked. While there is an abundance of nuclear power stations, there hasn't been much proliferation, and no weapons have been used since Nagasaki.

Why is there so little proliferation despite the huge spread of the global economy?

One major reason is that with the great military and nuclear weapons stand-off between the United States and Soviet Union, the possibility of state-on-state wars has faded across the post-World War II period, and has dropped even more steeply since the end of the Cold War.

Another reason is that building nuclear weapons is hard. It's certainly not as easy as some say—all you do is get a few kilos of plutonium or HEU, you just wrap some explosive lenses around it, and, presto, you have a weapon. As George Perkovich has noted, the last 5 percent of the effort is extremely difficult, but it would appear the first 95 percent is not so easy either.

There is still a taboo on testing, especially in the atmosphere.<sup>[20]</sup> The Indians and Pakistanis broke this taboo, in 1998. The next test will cause a global uproar, though what effect that would have is not clear. There are people in the current U.S. administration itching to test again, and if the United States did, the Russians would soon follow. Those same people, though, won't notice a test since they have denied that the Comprehensive Test Ban Treaty (CTBT) system of monitoring would ever detect anything.

Weaponizing and mating warheads is also very hard. It takes arming and fusing, acceleration resistance, heat shields, etc. Half the missiles fail, too.<sup>[21]</sup> And then there is the matter of accuracy. At even Nodong ranges, we're talking circle error probabilities of five miles.

In any case, it takes countries with industrial capabilities, and at least some funds, to do all of this. This means North Korea and Iran right now. Who next? Some will say, "They will not try ballistic missiles, but will use cruise missiles, taking out conventional warheads and replacing them with nuclear." But a knowledgeable Russian told me that Soviet AS-15 long-range nuclear cruise missiles left behind in Ukraine were useless, at least to Ukraine, "because they have no mapping." Watching all the Center for Naval Analyses work on all the Tomahawks the U.S. Navy has fired, it would not appear to be easy for a cruise missile to get anywhere and to hit a target. In any case, the countries we are talking about are not going to have many warheads. If you use one or test one, you have one less.

Finally, deterrence still works. Why not? After all, that's what North Korea and Iran think. They both speak of it. The North Koreans have explicitly said that they need nukes to compensate for their progressively deteriorating conventional forces.<sup>[22]</sup> Why would deterrence work for them, and not for us? They have a few weapons, and the United States has at least 3,000 ready warheads, of far greater reliability and destructiveness. We would evaporate them. They know that. Mao might say that he would still have 300 million peasants left after a nuclear attack. North Korea and Iran do not have such an advantage, if it is an advantage. One can talk about an Iranian "preemptive" attack on Israel, or their nuking an approaching U.S. amphibious force (as if that could conquer Iran), but that's nitpicking. Nuclear weapons are really good only against cities. Finally, the negation, in this country, of discussion and debate over deterrence arises from those who thought missile defense was the answer to everything. With missile defense, we would rule the world. Note, however, that it has not helped much in Iraq.

## Conclusion

To conclude, does globalization make the world go to hell because of rampant proliferation of technology falling into the hands of rogues and terrorists? The scenarios for the evolution of globalization are too complex to go into here. But, remember that globalization spreads because it opens up economic opportunities for populations. The rogues and terrorists we are concerned with eschew those opportunities. These include countries that can't run their own economies; and they are supposed to be brilliant exploiters of military technology? It is, to paraphrase Oscar Wilde, the pursuit of the unusable by the unspeakable.

In the narrow circles that consider this question in the United States, we are entering a new phase of hand wringing about the inevitable 25-65 countries that will now decide possession of nuclear weapons is the key to their futures. It is ironic that the Cassandras of the past—notably represented in *The Bulletin of the Atomic Scientists*—are, in this phase, the most skeptical about this coming proliferation. What is going on here?

For the United States, missile defense is not the answer—this may be a straw man at this point anyway. The Bush administration is pursuing diplomacy now. What lies beyond that: preemptive attack or containment? Containment may be the answer, especially given the exhaustion of U.S. ground forces and budgets in Iraq. But Syria better watch out. Of course, it has been said, if Syria were in East Asia, it would be called North Korea. But Syria is not that bad in many ways, and it is under tremendous pressure right now, both internally and externally. The question remains. Do countries join globalization or not? Do they make those connections or not? Proliferation is a way to opt out, not to join.

## About the Author

Dr. Gaffney is the Director of the Strategy and Concepts Team in the Center for Strategic Studies at The CNA Corporation (CNAC). He has been at CNAC since 1990, specializing in broad studies of the evolving world security environment (including a major study on Globalization and the U.S. Navy), the evolution of deterrence, US naval and other services' responses to situations, and the future of U.S. Naval forces, including the Navy's programming and assessment processes. He recently completed a major study of the *American Way of War and its Transformation*, and has done a report for the National Intelligence Council on the Changing Nature of Warfare Through 2020. He also managed a program of studies and seminars with a counterpart Russian institute from 1991 through 2004.

Prior to joining CNAC, Dr. Gaffney served for 28 years in the Office of the U.S. Secretary of Defense. He spent more than twelve years working on NATO matters, particularly NATO nuclear weapons matters. He devised the process (the NATO Nuclear Planning Group's High Level Group) and set forth the options that led to the deployment in 1983 of the "Euromissiles" offsetting the Soviet SS-20s. After two years of working directly on Middle East matters, he spent most of the 1980s as the Director of Plans in the Defense Security Assistance Agency, which managed U.S. arms sales and security assistance programs throughout the world.

Dr. Gaffney received his undergraduate degree from Harvard College and his doctorate from Columbia University, where he specialized in the politics of the developing areas. His doctoral dissertation was on the civil service of Sierra Leone. He served as an officer in the U.S. Navy from 1956 to 1959, on destroyers in the Pacific.

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## References

1. See "[Measuring Globalization](#)," *Foreign Policy* (May/June 2005), 52-60. Iran ranks 62 of 62 countries measured, and North Korea is not even on their list.

2. Except for Egyptian use of chemical weapons (CW) in Yemen in the 1960s, Iraq's use of CW against Iranian troops and its own Kurdish citizens, and Aum Shinrikyo's use of Sarin in Tokyo. A cult in Oregon tried to swing a local election by poisoning a salad bar with salmonella. Nasser is gone, Saddam is gone, the cult has been liquidated, and a shrunken Aum Shinrikyo is confined and harassed in Japan.

3. As one eminent nuclear strategist said, "the only thing worse would be the use of a nuclear weapon, e.g., in the Rajasthan Desert, *to no effect at all*..."

4. See Thomas P. M. Barnett, *The Pentagon's New Map* (New York: Putnam, 2004) for a discussion of The Core vs. The Gap.

5. See Sebastian Mallaby, "[China's \(Petty\) Fiscal Crimes](#)," *The Washington Post*, June 6, 2005, A19.

6. Harold James, *The End of Globalization: Lessons from the Great Depression* (Cambridge, MA: Harvard University Press, 2002).

7. By all accounts, development aid, i.e., Official Development Assistance (ODA), has never really led to a country's economic take-off. And since at least 1990, it has been far outstripped by private foreign direct investment (FDI). ODA has been ameliorative, but FDI has created jobs.

8. After the oil embargo and price rises following the Arab-Israeli war of 1973, and accompanying inflation in the West, economic issues, not security issues, brought heads-of-state in the West together for meetings.

9. Russia's financial collapse in 1998 was not related to the Asian financial crisis of 1997, but was actually a radical readjustment of their economy that has led to substantial growth—though now it is largely driven by the high oil prices, which are inflicting "the Dutch disease" on them, or, as Andrei Illarionov calls it, "the Venezuelan disease."

10. Michael M. Weinstein, ed., *Globalization: What's New* (New York: Columbia University Press, 2005); see also, Martin Wolf, *Why Globalization Works* (New Haven, CT: Yale University Press, 2005). Various globalization websites, e.g., [Yale Global Online Magazine](#), hardly raise issues of security.

11. See John D. Steinbruner, *The Cybernetic Theory of Decision* (Princeton, NJ: Princeton University Press, 1974), for the history of the MLF.

12. See Jeffrey Lewis, "[The Ambiguous Arsenal](#)," *Bulletin of the Atomic Scientists* (May-June 2005), 52-59.

13. At a session hosted by the Center for Naval Analyses with British naval historian Geoffrey Till about three years ago, someone asked him what the future of the British SLBM force would be. He said, "Why, it depends on what the French do."

14. In a recent presentation, a retired Brazilian general noted that Brazilian forces used to face south and the Argentine forces faced north, but now Brazil faces north, through the Amazon, against the shadowy drug and guerrilla threats in the Andes.

15. The author participated in a visit with General/President Zia in early 1980, in which Zia declared that he could not stop a program begun by a civilian government, but would leave it to the civilians when he restored civilian rule. At another meeting with the Pakistani foreign minister

that the author attended at the State Department, the United States insisted that its continued assistance to Pakistan would be conditioned on Pakistan not weaponizing its fissile materials and not transferring anything to other countries. The Pakistanis agreed. Throughout the 1980s, those in government watched anxiously as Pakistan prepared underground test sites. It is the first time the author learned the word “adit.” The United States is now watching North Korean adits.

16. Especially by a good friend of the author’s, retired Colonel General Viktor Yesin, former Chief of Staff of Strategic Rocket Forces and formerly in charge of military restructuring at the Russian Security Council.

17. This is an important series of “ifs.” North Korea has not attacked south for 55 years, despite many opportunities when the United States was distracted. The South Koreans believe that it has been U.S. nuclear weapons that have deterred North Korea. When North Korea has 6-12, why would they be less deterred when the United States still has 3,000?

18. No written material was more boring than the endless Adelphi and other papers during the Cold War on the role of the *Force de Frappe*.

19. See Thomas Frank, *What’s the Matter with Kansas?: How Conservatives Won the Heart of America* (New York: Henry Holt, May 2005). The revolt against globalization becomes localization, or, in Tom Friedman’s term, “glocalization.”

20. A U.S. Navy captain who worked for the author, and his crew, were the last Americans to see a nuclear explosion—while monitoring the last French atmospheric test in the southern Pacific.

21. The Nodong was tested once, in 1993, and failed. Perhaps its spin-offs, the Pakistani Gauri and Iranian Shehab-3, are providing test experience data back to the North Koreans.

22. And their soldiers. The average North Korean is now eight inches shorter and half the weight of South Korean counterparts.